

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

5

1. (currently amended) A method comprising:

routing a set-up message to a plurality of nodes in at least one transport network, wherein said set-up message reserves network resources for a plurality of traffic paths through said transport network as said set-up message visits each of said plurality of nodes; and

10

routing said set-up message to said plurality of nodes in said transport network, wherein said set-up message provisions said reserved network resources for said plurality of traffic paths through said transport network as said set-up message revisits each of said plurality of nodes;

15

wherein the reserved network resources are provisioned only if all of the resources needed for the plurality of traffic paths have been successfully reserved.

20

2. (previously presented) The method of claim 1 wherein at least one of said plurality of traffic paths is a working path and wherein at least one of said plurality of traffic paths is a protection path for said working path.

25

3. (original) The method of claim 1 wherein said set-up message revisits each of said plurality of nodes in the reverse order in which said set-up message visits each of said plurality of nodes.

4. (original) The method of claim 1 wherein said transport network is a mesh network.

30

5. (original) The method of claim 1 wherein said transport network is a ring network.

6. (previously presented) The method of claim 1 wherein at least one of said plurality of traffic paths is a multicast traffic path.

7. (previously presented) The method of claim 1 wherein some of said plurality of nodes are in a first transport network and some of said nodes are in a second transport network.

8. (canceled)

10 9. (canceled)

10. (canceled)

11. (canceled)

15

12. (canceled)

13. (canceled)

20 14. (canceled)

15. (canceled)

25

16. (currently amended) A method comprising:

routing a set-up message to a plurality of nodes in at least one transport network, wherein said set-up message reserves network resources for a plurality of traffic paths through said transport network as said set-up message visits each of said plurality of nodes; and

revisiting said plurality of nodes with one or more set-up messages, wherein said one or more set-up messages provision said reserved network resources for said plurality of traffic paths through said transport network as said one or more set-up ~~multicast~~ messages revisit each of said plurality of nodes;

wherein the reserved network resources are provisioned only if all of the resources needed for the plurality of traffic paths have been successfully reserved.

17. (previously presented) The method of claim 16 wherein at least one of said plurality of traffic paths is a working path and wherein at least one of said plurality of traffic paths is a protection path for said working path.

18. (previously presented) The method of claim 16 wherein at least one of said plurality of traffic paths is a multicast traffic path.

19. (previously presented) The method of claim 16 wherein some of said plurality of nodes are in a first transport network and some of said nodes are in a second transport network.

20. (new) A method comprising:

routing a set-up message to a plurality of nodes in at least one transport network, wherein said set-up message reserves network resources for a plurality of traffic paths through said transport network as said set-up message visits each of said plurality of nodes; and

routing said set-up message to said plurality of nodes in said transport network, wherein said set-up message coherently provisions said reserved network resources for said plurality of traffic paths through said transport network as said set-up message revisits each of said plurality of nodes.

21. (new) The method of claim 20 wherein at least one of said plurality of traffic paths is a working path and wherein at least one of said plurality of traffic paths is a protection path for said working path.

22. (new) A method comprising:

routing a set-up message to a plurality of nodes in at least one transport network, wherein said set-up message reserves network resources for a plurality of traffic paths through said transport network as said set-up message visits each of said plurality of nodes; and

revisiting said plurality of nodes with one or more set-up messages, wherein said one or more set-up messages coherently provision said reserved network resources for said plurality of traffic paths through said transport network as said multicast messages revisit each of said plurality of nodes.

23. (new) The method of claim 22 wherein at least one of said plurality of traffic paths is a working path and wherein at least one of said plurality of traffic paths is a protection path for said working path.

24. (new) A method comprising:

checking the nodes of a plurality of proposed traffic paths to ensure that each node can provide the resources needed to establish the proposed traffic paths, wherein the nodes are checked by sending a set-up message to the nodes;

5 reserving, at each node, the resources needed to establish the proposed traffic paths if the resources are available; and

provisioning, at each node, the resources needed to establish the proposed traffic paths only if all of the resources needed to establish the proposed traffic paths have been successfully reserved.

10

25. (new) The method of claim 24 wherein the nodes are checked one node after another.

26. (new) The method of claim 24 wherein the set-up message includes an
15 indication of the order in which to check the nodes.

27. (new) The method of claim 26 wherein provisioning the resources comprises routing the set-up message to the nodes in the reverse order in which the nodes were checked.

20